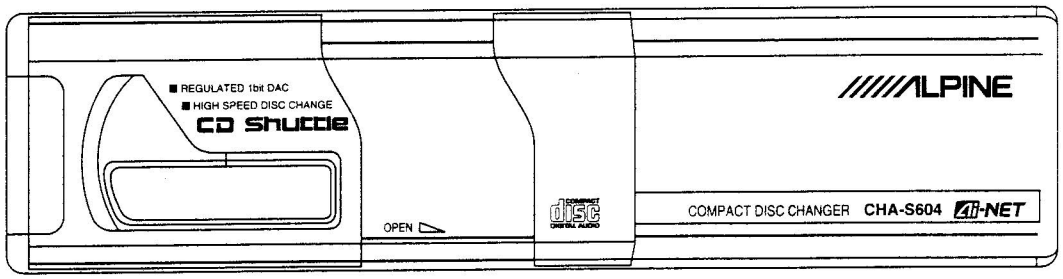
ALPINE

SERVICE MANUAL

Compact Disc Remote Changer

CD Shuttle

COMPACT disc DIGITAL AUDIO



Ai-NET

CHA-S604

Contents

Specifications (Only Difference) 2
Description of IC Terminal ..... 3 to 4
Block Diagram 5
Parts Layout on P.C. Boards and Wiring Diagram (Only Difference) ..... 7 to 8
Schematic Diagram ..... 9 to 11
Electrical Parts List ..... 12 to 15
Cabinet Assembly Parts List 16
Exploded View (Cabinet) ..... 17 to 18
Packing Assembly Parts List 19
Packing Method View 19
Semi-Conductor Lead Identifications 20

Servo Monitor ——— Refer to the Service Manual • CHA-S605 (Part No. 68E22477S01).
サービスマニュアル・CHA-S605 (68E22477S01)を参照願います。

Specifications

NOTE : Refer to the Service Manual • CHA-S605 (Part No. 68E22477S01) for description not mentioned in this manual.

※ 記載されていない部分については、サービスマニュアル・CHA-S605 (68E22477S01) を参照願います。

<GENERAL>

Output Voltage/Impedance	850±150mV/10k ohm
Dimensions (W×H×D)	250×60×152.8mm

NOTE : Due to Continuing product improvement, specifications and designs are subject to change without notice.

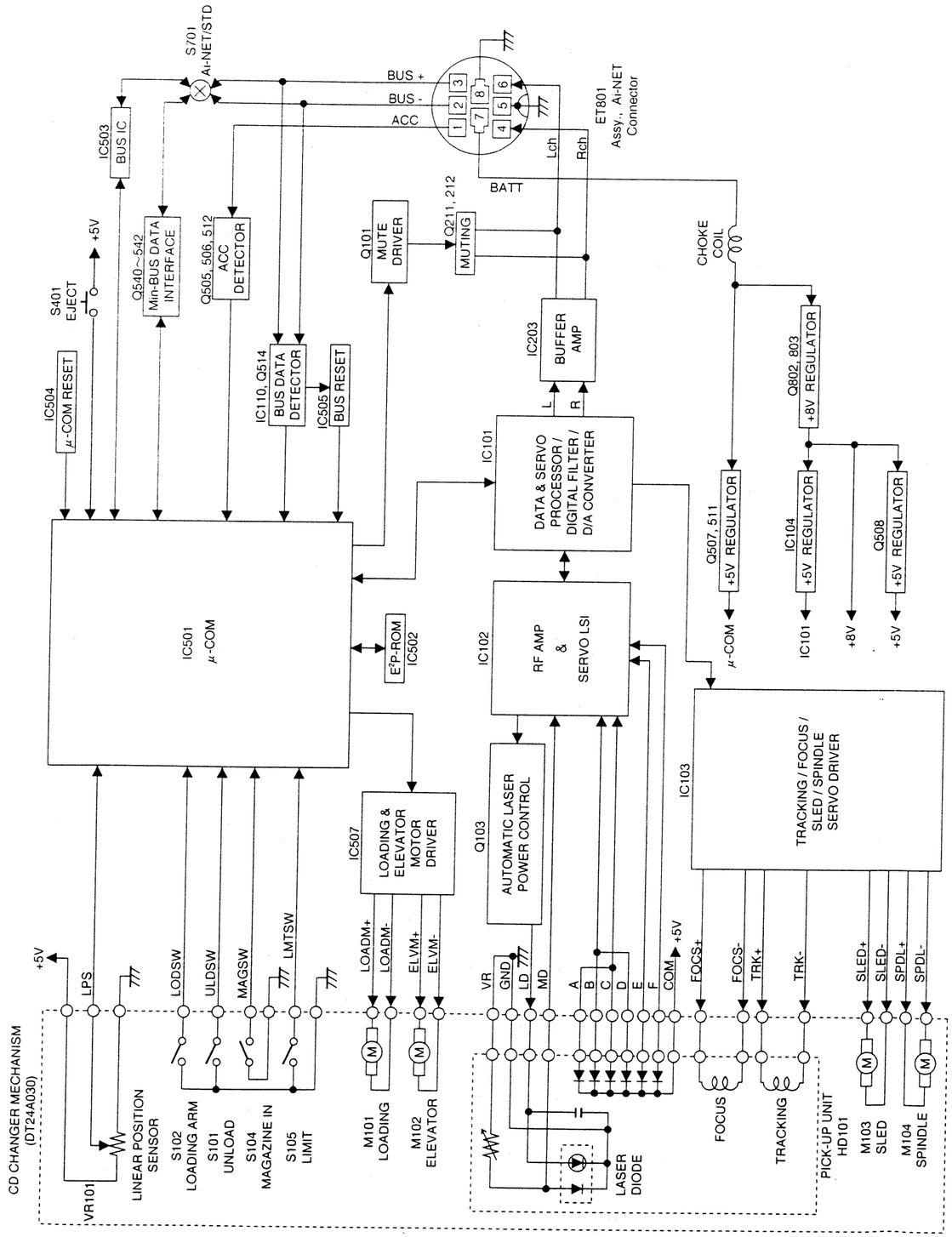
Description of IC Terminal

85288W01 : IC501

No.	Symbol	I/O	Terminal Description
1	Ai-RST	O	MB88385APF (IC503) Reset Signal Output Terminal.
2	Min-OUT	O	Min-Bus Data Output Terminal.
3	ACC-IN	I	ACC Detection Terminal.
4	NC	—	Open Terminal.
5	RST2	O	DAC Output Stop Terminal. (L : Output Stop)
6	SCL	I/O	E²P-ROM Clock Terminal.
7	SDA	I/O	E²P-ROM Data Terminal.
8	Ai-DET	I	Ai-NET Bus Busy Detection Terminal. (H : Busy)
9	V_{SS}	—	GND Terminal.
10	A0	O	MN66271 (iC101) Auto Adjustment Output Terminal.
11	A1		
12	A2		
13	ELVM+	O	Elevator Motor Output (+) Terminal.
14	ELVM -	O	Elevator Motor Output (-) Terminal.
15	LODM+	O	Loading Motor Ouptut (+) Terminal.
16	LODM -	O	Loading Motor Output (-) Terminal.
17	EJLED	O	Eject Key Lighting LED Output Terminal. (H : Lighting)
18	V_{SS}	—	GND Terminal.
19	BUS-SW	I	Bus Select Switch Terminal. (H : Min-Bus, L : Ai-NET)
20	NC	—	Open Terminal.
21			
22	STAT	I	MN66271 (IC101) Status Signal Terminal.
23	TLOCK	I	MN66271 (IC101) Tracking Servo Signal Pull in Input Terminal.
24	V_{SS}	—	GND Terminal.
25	FLOCK	I	MN66271 (IC101) Focus Servo Signal Pull in Input Terminal.
26	SENSE	I	MN66271 (IC101) Sense Signal Input Terminal.
27	NC	—	Open Terminal.
28	MLD	O	LSI Control Latch Output Terminal.
29	MDATA	O	LSI Control Data Output Terminal.
30	MCLK	O	LSI Control Clock Output Terminal.
31	XRST	O	Surrounding Reset Termianl. (L : Reset)
32	DMUTE	O	Digital Mute Output Terminal. (H : Silence)
33	AMUTE	O	Analog Mute Output Terminal. (H : Silence)
34	VCONT	O	Power Supply Control Output Terminal. (H : Power On)
35	RESET	I	System Reset Input Terminal.
36	B-HOLD	I	Battery Power Supply Voltage Detection Terminal. (L : Stand-by)
37	BUS-IN	I	Min-Bus Input/MB88385APF (IC503) IRQ Input Terminal.
38	A-HOLD	I	ACC Detection Terminal. (L : Stand-by)

No.	Symbol	I/O	Terminal Description
39	BLKCK	I	MN66271 (IC101) BLKCK Input Terminal.
40	V_{DD}	—	+5V Power Supply (Battery) Terminal.
41	X2	—	8.38MHz System Clock Terminal.
42	X1	I	
43	V_{SS}	—	GND Terminal.
44	NC	—	Open Terminal.
45	V_{SS}	—	GND Terminal.
46	AV_{SS}	—	Analog GND Terminal.
47	LPS	I	Linear Position Sensor A/D Input Terminal.
48	TEMP	I	Temperature Thermistor A/D Input Terminal.
49	DOSW	I	Optical-Out Output Terminal. (Fixation L)
50	ULDSW	I	Unloading Detection Switch Terminal. (L : Unloading)
51	LODSW	I	Loading Detection Switch Terminal. (L : Loading)
52	MAGSW	I	Magazine Input Detection Switch Terminal. (H : MAG-IN)
53	LMT SW	I	Limit Switch Terminal.
54	EJKEY	I	Eject Switch Input Terminal.
55	AV_{DD}	—	+5V Power Supply Terminal.
56	AV_{REF}	—	+5V Power Supply (V-CONT) Terminal.
57	SUB-Q	I	MN66271 (IC101) SUB-Q Input Terminal.
58	NC	—	Open Terminal.
59	SQCK	O	SUB-Q Reading Clock Output Terminal.
60	Ai-RS	O	MB88385APF (IC503) Register Select Output Terminal.
61	Ai-R/W	O	MB88385APF (IC503) Register Read/Wright Selection Output Terminal. (H : Read)
62	Ai-SIN	I	MB88385APF (IC503) Serial Data Input Terminal.
63	Ai-SOUT	O	MB88385APF (IC503) Serial Data Output Terminal.
64	Ai-SCLK	O	MB88385APF (IC503) Serial Clock Output Terminal.

Block Diagram



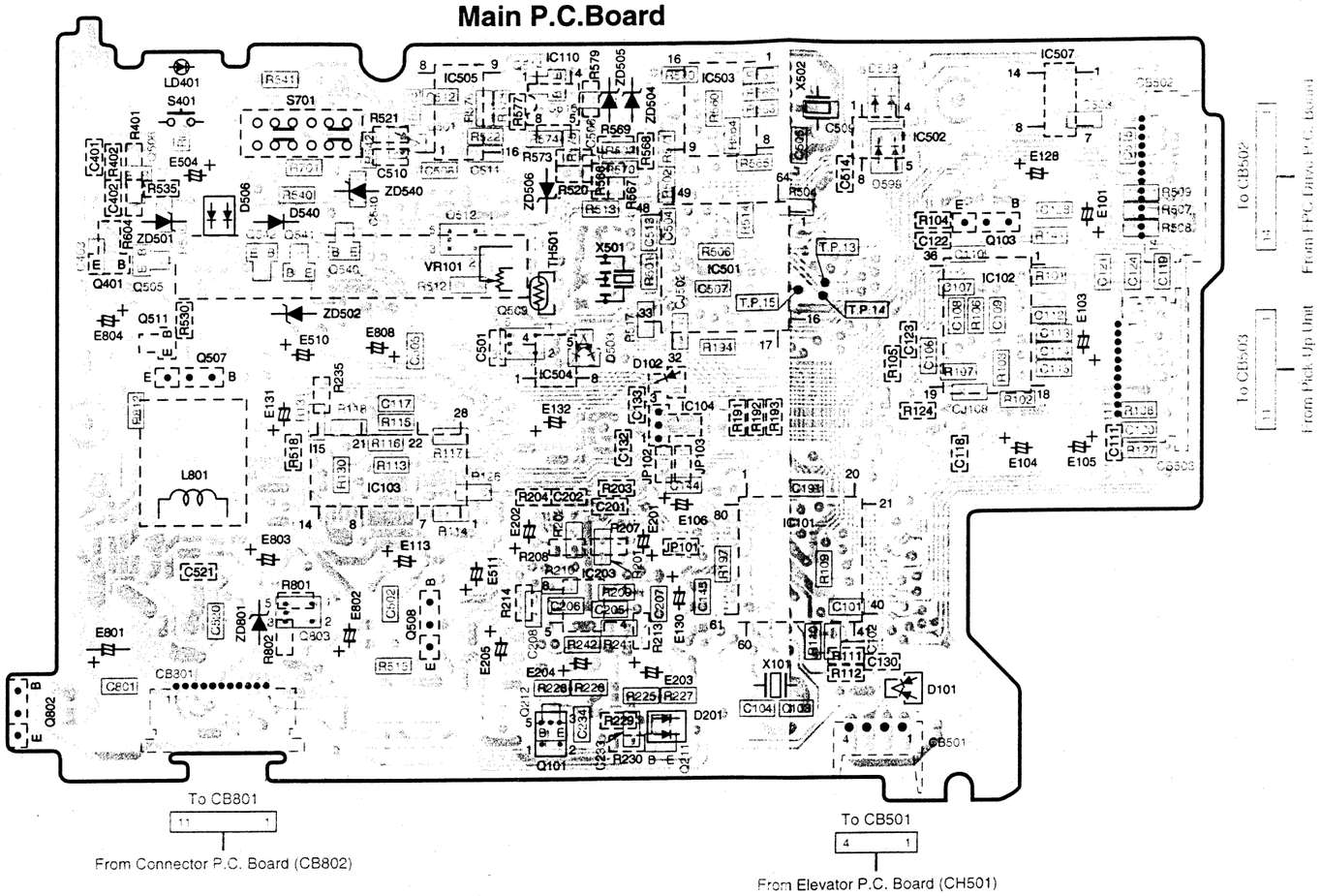
MEMO

CHA-S604 CHA-S604

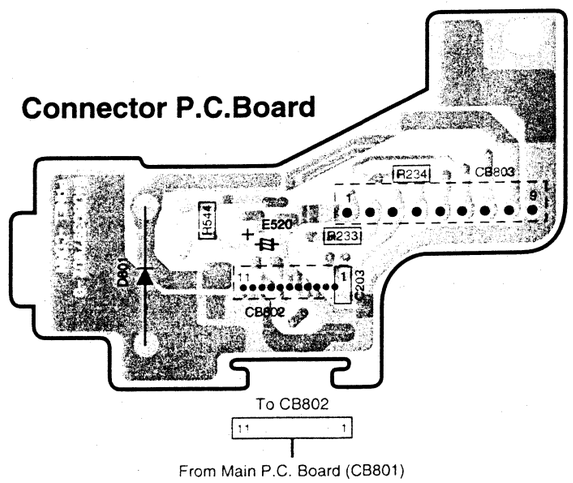
Parts Layout on P.C. Boards and Wiring Diagram

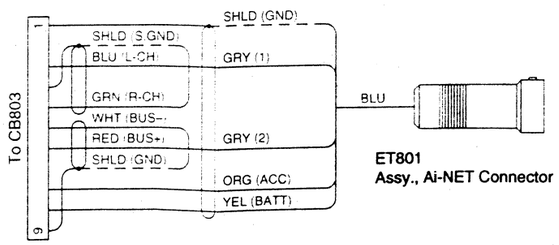
All P.C. Boards viewed from soldered side.

Main P.C.Board



Connector P.C.Board



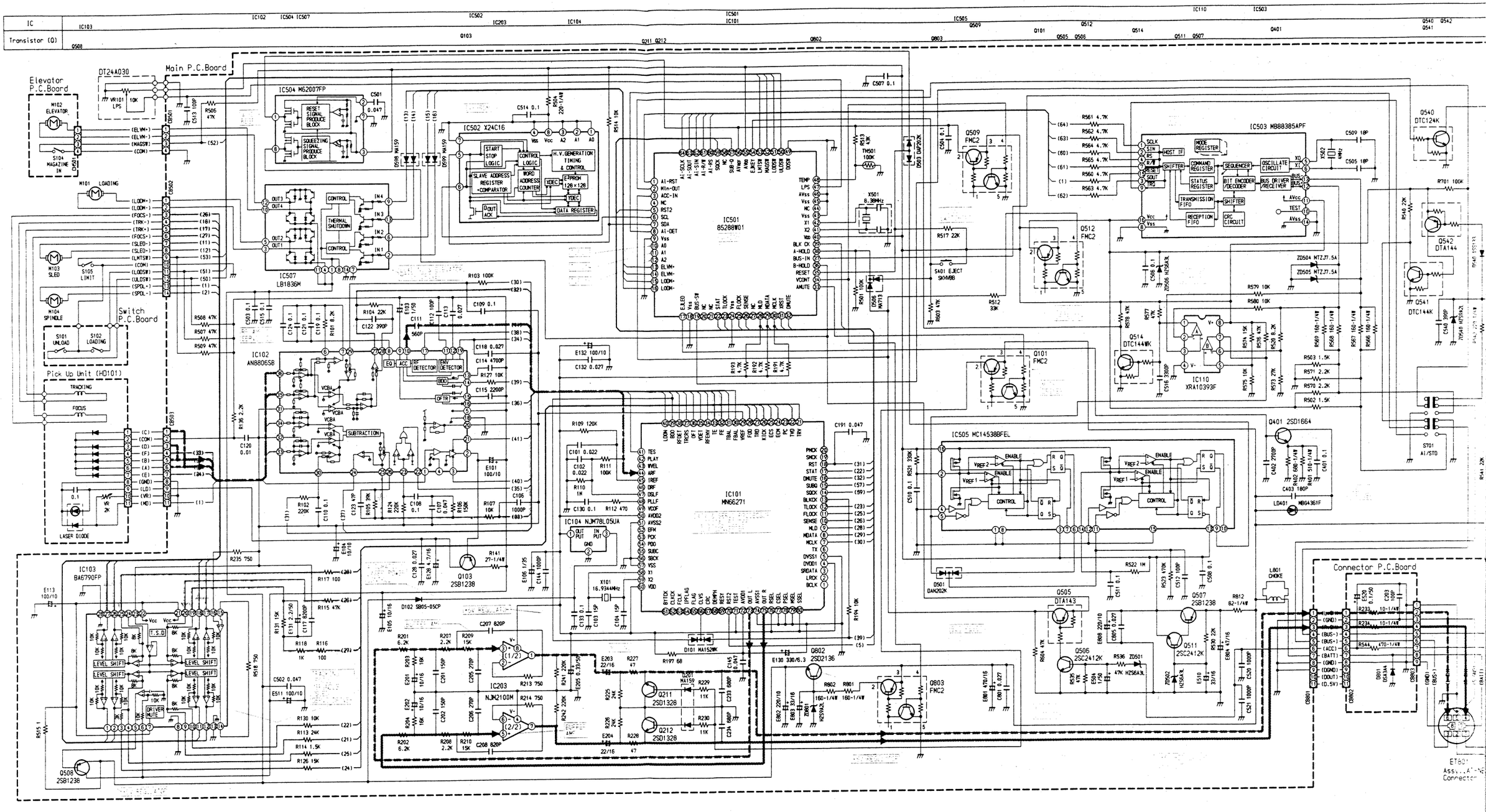


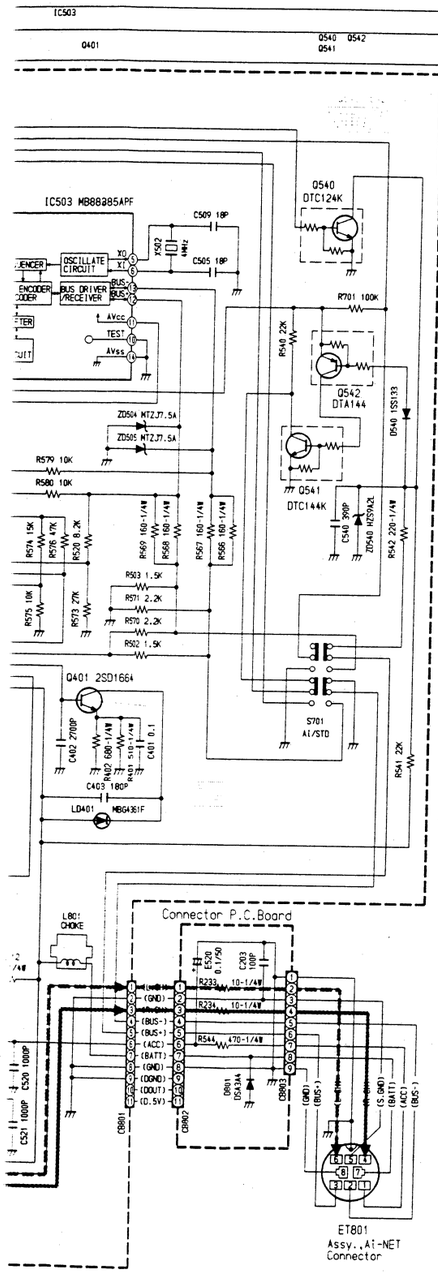
NOTE: Refer to the Service Manual・CHA-S605 (Part No. 68E22477S01) for description not mentioned in this manual.

※ 記載されていない部分については、サービスマニュアル・CHA-S605 (68E22477S01)を参照願います。

Orange Color Pattern : Component Side Pattern
Blue Color Pattern : Foil Side Pattern

Schematic Diagram





IC101

1	NC	21	2.8V	41	0.1V	61	NC
2	NC	22	2.8V	42	NC	62	NC
3	NC	23	NC	43	NC	63	NC
4	5V	24	2.5V	44	2.5V	64	NC
5	0V	25	2.5V	45	1.5V	65	NC
6	NC	26	2.4V	46	NC	66	5V
7	5V	27	2.8V	47	2.5V	67	5V
8	5V	28	2.7V	48	2.1V	68	NC
9	4.9V	29	2.8V	49	NC	69	5V
10	0V	30	2.5V	50	5V	70	4.9V
11	0V	31	2.6V	51	0V	71	5V
12	0.1V	32	2.5V	52	NC	72	4.9V
13	0.1V	33	2.5V	53	NC	73	2.5V
14	4.9V	34	2.5V	54	NC	74	0V
15	5V	35	0V	55	NC	75	2.5V
16	0V	36	0V	56	0V	76	5V
17	5V	37	1.5V	57	0V	77	0V
18	5V	38	0V	58	2.5V	78	0V
19	NC	39	0V	59	2.3V	79	0V
20	NC	40	5V	60	5V	80	5V

IC102

1	0.2V	19	2.5V
2	3.3V	20	2.6V
3	5V	21	0.1V
4	NC	22	0V
5	5.1V	23	2.1V
6	2.6V	24	1.5V
7	3V	25	2.6V
8	2.5V	26	2.6V
9	3.6V	27	2.5V
10	1.7V	28	2.6V
11	4V	29	2.6V
12	3.3V	30	2.6V
13	3.7V	31	2.6V
14	0V	32	2.6V
15	3.6V	33	2.6V
16	0V	34	2.6V
17	0V	35	2.6V
18	0V	36	2.6V

IC103

1	4.3V	15	2.5V
2	3.8V	16	2.5V
3	2.5V	17	4V
4	2.6V	18	4V
5	7.2V	19	2.5V
6	5.1V	20	2.6V
7	7.9V	21	7.8V
8	0V	22	7.9V
9	2.6V	23	2.6V
10	2.5V	24	NC
11	4V	25	2.6V
12	4V	26	4.2V
13	0V	27	3.8V
14	2.6V	28	0V

IC110

1	PS
2	PS
3	PS
4	0V
5	2V
6	PS
7	PS
8	5V

IC203

1	2.5V
2	2.5V
3	2.4V
4	0V
5	2.4V
6	2.5V
7	2.5V
8	5V

IC104

1	5V
2	0V
3	7.8V

IC502

1~4	0V
5	5V
6, 7	0V
8	5V

IC503

1	5V	9	PS
2	PS	10	0V
3	PS	11	5V
4	PS	12	PS
5	1.9V	13	PS
6	1.7V	14	0V
7	5V	15	5V
8	0V	16	5V

IC504

1	5V
2	4.9V
3	5V
4	NC
5	NC
6	NC
7	0V
8	4.8V

IC505

1	0V	9	5V
2	PS	10	NC
3	5V	11	PS
4	0V	12	0V
5	PS	13	5V
6	PS	14	5V
7	NC	15	0V
8	0V	16	5V

IC507

1	7.8V	8	NC
2	4.5V	9	4.5V
3	0V	10	0V
4	7.8V	11	7.8V
5	0V	12	0V
6	4.5V	13	4.5V
7	0V	14	0V

IC501

	Ai-NET Mode			Min-BUS Mode		
	POW-ON	POW-OFF	ACC-OFF	POW-ON	POW-OFF	ACC-OFF
1	5.08V	5.08V	0V	0V	0V	0V
2	0V	0V	0V	PS	PS	0V
3	4.78V	4.8V	0V	4.81V	4.81V	0V
4	NC	NC	NC	NC	NC	NC
5	5.08V	0V	0V	5.08V	0V	0V
6	0V	0V	0V	0V	0V	0V
7	5.08V	5.07V	5.13V	5.08V	5.07V	5.13V
8	PS	0V	0V	0V	0V	5.08V
9	0V	0V	0V	0V	0V	0V
10	5.08V	5.07V	0V	5.09V	5.07V	0V
11	5V	5V	0V	4.98V	4.95V	0V
12	4.97V	4.97V	0V	4.95V	4.9V	0V
13	5.08V	0V	0V	5.09V	0V	0V
14	5.08V	0V	0V	5.09V	0V	0V
15	5.08V	0V	0V	5.09V	0V	0V
16	5.08V	0V	0V	5.09V	0V	0V
17	5.07V	5.07V	0V	5.08V	0V	0V
18	0V	0V	0V	0V	0V	0V
19	0V	0V	0V	4.98V	4.95V	5.03V
20	NC	NC	NC	NC	NC	NC
21	NC	NC	NC	NC	NC	NC
22	4.95V	0V	0V	5V	0V	0V
23	0V	0V	0V	0V	0V	0V
24	0V	0V	0V	0V	0V	0V
25	0V	0V	0V	0V	0V	0V
26	0V	0V	0V	0V	0V	0V
27	NC	NC	NC	NC	NC	NC
28	4.98V	0V	0V	5.01V	0V	0V
29	4.94V	0V	0V	4.99V	0V	0V
30	4.94V	0V	0V	4.99V	0V	0V
31	5.07V	0V	0V	5.08V	0V	0V
32	0V	0V	0V	0V	0V	0V
33	0V	5.08V	0V	0V	5.08V	0V
34	5V	0V	0V	5.08V	0V	0V
35	5V	5V	5V	5V	5V	5V
36	4.77V	4.79V	5.11V	4.81V	4.79V	5.01V
37	PS	0V	0V	PS	PS	5.09V
38	4.35V	4.36V	0V	4.36V	4.35V	0V
39	PS	0V	0V	PS	0V	0V
40	5.05V	5.07V	5.11V	5.08V	5.05V	5.12V
41	OSC	OSC	5.12V	OSC	OSC	5.12V
42	2.67V	2.63V	0V	2.67V	2.63V	0V
43	0V	0V	0V	0V	0V	0V
44	NC	NC	NC	NC	NC	NC
45	0V	0V	0V	0V	0V	0V
46	0V	0V	0V	0V	0V	0V
47	2.89V	0V	0V	2.89V	0V	0V
48	2.88V	0V	0V	3.04V	0V	0V
49	0V	0V	0V	0V	0V	0V
50	4.98V	0V	0V	5V	0V	0V
51	0V	0V	0V	0V	0V	0V
52	5.02V	5.03V	5.07V	4.99V	4.99V	5.06V
53	4.98V	0V	0V	5V	0V	0V
54	0V	0V	0V	0V	0V	0V
55	5.07V	5.08V	5.03V	5.04V	5.04V	5.11V
56	5.07V	0V	0V	5.02V	0V	0V
57	PS	0V	0V	PS	0V	0V
58	NC	NC	NC	NC	NC	NC
59	PS	0V	0V	PS	0V	0V
60	PS	5.08V	0V	0V	0V	0V
61	PS	5.08V	0V	0V	0V	0V
62	PS	0V	0V	4.98V	4.97V	0V
63	PS	0V	0V	0V	0V	0V
64	PS	5.08V	0V	0V	0V	0V

※ Pow-ON : at Play / POW-OFF : at Radio Mode

R-ch Signal Line
L-ch Signal Line
CD Signal Line
Focus Error Signal Line
Tracking Error Signal Line
Spindle Drive Signal Line
Sled Drive Signal Line

	E	C	B
Q103	3.9V	1.9V	3.3V
Q211	0V	0V	-0.3V
Q212	0V	0V	-0.3V
Q401	4.4V	11.5V	5V
Q505	5V	5V	0V
Q506	0V	0V	0.6V
Q507	11.8V	5V	11.2V
Q508	7.9V	5.1V	7.2V
Q511	5V	11.2V	5.5V
Q514	0V	0V	2.6V
Q540	0V	PS	PS
Q541	0V	PS	PS
Q542	5V	PS	PS
Q802	8V	13.7V	8.5V

	1	2	3	4	5
Q101	NC	-0.3V	13.6V	0V	0V
Q509	NC	5V	5V	5V	0V
Q512	NC	5V	5V	5V	0V
Q803	NC	13.6V	13.7V	5V	0V

[Measuring Conditions]

- Power Supply Voltage : DC14.4V
- Measuring Meter : Digital Multi Voltmeter
- Measuring Point Reference : Between Ground
- Measuring Conditions : Playing Music Disc at Room Temperature.

NOTE:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1{,}000{,}000}$

Electrical Parts List

Resistor : Carbon resistors under 1/4 watts are not mentioned in the parts list, please confirm them by schematic diagram.
Capacitor : μF=microfarads,pF=picofarads

Abbreviations

RES.= Resistor	CAP.= Capacitor
C.F.= Carbon Film	ELY.= Electrolytic
M.F.= Metal Film	CER.= Ceramic
M.O.= Metal Oxide Film	MYL.= Mylar
M.P.= Metal Plate	TAN.= Tantalum
TR. = Transistor	POLY.= Polystyrol
TRANS.= Transformer	PP. = Polypropylene
CP. = Chip	PLT.= Polyethylene
	PF. = Polyester Film

Symbol No.	Part No.	Description
Main P.C.Board		
IC's		
IC101	51T65088W01	MN66271
IC102	51T65510W01	AN8806SB
IC103	51T65291W01	BA6790FP
IC104	51T11054W02	NJM78L05UA
IC110	51T73285F21	XRA10393F
IC203	51T16025W01	NJM2100M
IC501	51T85288W01	85288W01
IC502	51T85304W01	X24C16
IC503	51T55070W04	MB88385APF
IC504	51T35308W01	M62007FP
IC505	51T25370W01	MC14538BFEL
IC507	51T45571W02	LB1836M
Transistors		
Q101	48T73888F12	CP., FMC2
Q103	48T84234F03	2SB1238
Q211	48T63788F01	CP., 2SD1328
Q212	48T63788F01	CP., 2SD1328
Q401	48T80614F01	CP., 2SD1664
Q505	48T62966F01	CP., DTA143
Q506	48T63417F01	CP., 2SC2412K
Q507	48T84234F03	2SB1238
Q508	48T84234F03	2SB1238
Q509	48T73888F12	CP., FMC2
Q511	48T63417F01	CP., 2SC2412K
Q512	48T73888F12	CP., FMC2
Q514	48T62967F08	CP., DTC144WK
Q540	48T62967F03	CP., DTC124K
Q541	48T62967F04	CP., DTC144K
Q542	48T62966F04	CP., DTA144
Q802	48T65256W03	2SD2136
Q803	48T73888F12	CP., FMC2
Diodes		
D101	48T25651W02	CP., MA152WK
D102	48T15702W01	CP., SB05-05CP
D201	48T81063F01	CP., MA159
D501	48T63462F01	CP., DAN202K
D503	48T63463F01	CP., DAP202K
D506	48T95117F01	CP., MA713
D540	48T68828F11	1SS133
D598	48T81063F01	CP., MA159
D599	48T81063F01	CP., MA159
ZD501	48T25766W03	Zener, HZS6A3L
ZD502	48T25766W03	Zener, HZS6A3L
ZD504	48T45012W35	Zener, MTZJ7.5A
ZD505	48T45012W35	Zener, MTZJ7.5A
ZD506	48T25766W03	Zener, HZS6A3L
ZD540	48T25766W20	Zener, HZS9A2L
ZD801	48T25766W20	Zener, HZS9A2L
Crystals		
X101	91T25806W92	16.9344MHz
X501	91T15285W10	CER. Lock, 8.38MHz
X502	91T45118W12	4MHz
Switches		
S401	40T55182W03	Tact, SKHVBB (EJECT)
S701	40T45282W01	Slide, SLD-42-508 (Ai/STD)
LED / Coil		
LD401	48T75203W01	MBG4361F (GRN)
L801	24T65097W01	Coil, Choke
Thermistor		
TH501	48T93439F06	100K ohm
Capacitors		
C101	08T15399W01	CP., 0.022μF
E101	23S75372W02	ELY., 100μF / 10V
C102	08T15399W01	CP., 0.022μF
C103	08S82122F17	CP., 15pF
E103	23S75372W15	ELY., 1μF / 50V
C104	08S82122F17	CP., 15pF
E104	23T74437F21	TAN., 10μF / 10V
E105	23T74437F32	TAN., 10μF / 16V
C106	08S65128F57	CP., 1000pF
E106	23T74437F49	TAN., 1μF / 35V
C107	08T15399W03	CP., 0.047μF
C108	08S35374W01	CP., 0.1μF
C109	08S35374W01	CP., 0.1μF
C110	08S35374W01	CP., 0.1μF
C111	08S82122F55	CP., 560pF
C112	08S82122F37	CP., 100pF
C113	08T15399W04	CP., 0.027μF
E113	23S75372W02	ELY., 100μF / 10V
C114	08S65128F65	CP., 4700pF
C115	08S65128F61	CP., 2200pF
C117	08S65128F68	CP., 8200pF
C118	08T15399W04	CP., 0.027μF
C119	08S35374W01	CP., 0.1μF
C120	08S65128F69	CP., 0.01μF
C121	08S35374W01	CP., 0.1μF
C122	08S82122F51	CP., 390pF
C123	08S82122F29	CP., 47pF
C124	08S35374W01	CP., 0.1μF
C128	08T15399W04	CP., 0.027μF
E128	23T74437F30	TAN., 4.7μF / 16V
C130	08S35374W01	CP., 0.1μF
E130	23S75372W01	ELY., 330μF / 6.3V
E131	23S75372W16	ELY., 2.2μF / 50V
C132	08T15399W04	CP., 0.027μF
E132	23S75372W02	ELY., 100μF / 10V
C133	08S35374W01	CP., 0.1μF
C144	08S82122F61	CP., 1000pF
C145	08T15399W03	CP., 0.047μF
C191	08T15399W03	CP., 0.047μF
C201	08S82122F41	CP., 150pF
E201	23S75372W04	ELY., 10μF / 16V
C202	08S82122F41	CP., 150pF
E202	23S75372W04	ELY., 10μF / 16V
E203	23S75372W05	ELY., 22μF / 16V
E204	23S75372W05	ELY., 22μF / 16V
C205	08S82122F47	CP., 270pF
E205	23S75372W12	ELY., 0.33μF / 50V
C206	08S82122F47	CP., 270pF
C207	08S82122F59	CP., 820pF
C208	08S82122F59	CP., 820pF
C233	08S82122F57	CP., 680pF
C234	08S82122F57	CP., 680pF
C401	08S35374W01	CP., 0.1μF
C402	08S65128F62	CP., 2700pF
C403	08S82122F43	CP., 180pF
C501	08T15399W03	CP., 0.047μF
C502	08T15399W03	CP., 0.047μF
C503	08S35374W01	CP., 0.1μF
C504	08S35374W01	CP., 0.1μF
E504	23S75372W15	ELY., 1μF / 50V
C505	08S82122F19	CP., 18pF
C506	08S35374W01	CP., 0.1μF
C507	08S35374W01	CP., 0.1μF
C508	08S35374W01	CP., 0.1μF
C509	08S82122F19	CP., 18pF
C510	08S35374W01	CP., 0.1μF
E510	23S75372W06	ELY., 33μF / 16V
C511	08S35374W01	CP., 0.1μF
E511	23S75372W02	ELY., 100μF / 10V
C512	08S82122F37	CP., 100pF
C513	08S82122F37	CP., 100pF
C514	08S35374W01	CP., 0.1μF
C515	08S35374W01	CP., 0.1μF
C516	08S65128F63	CP., 3300pF
C520	08T55401W01	TF, 1000pF
C521	08S65128F57	CP., 1000pF
C540	08S82122F51	CP., 390pF
C801	08T15399W04	CP., 0.027μF
E801	23T75427W01	ELY., 470μF / 16V
E802	23S75372W03	ELY., 220μF / 10V
E803	23S75372W06	ELY., 33μF / 16V
E804	23S75372W07	ELY., 47μF / 16V
C805	08T15399W04	CP., 0.027μF
E808	23S75372W03	ELY., 220μF / 10V
Resistors		(All resistors are chip 1/10W±5% unless otherwise noted.)
R101	06S64995F75	8.2K ohm
R102	06S64996F10	220K ohm
R103	06S64996F02	100K ohm
R104	06S64995F85	22K ohm
R105	06S64995F91	39K ohm
R106	06S64996F06	150K ohm
R107	06S64995F77	10K ohm
R109	06S64996F04	120K ohm
R110	06S64996F26	1M ohm
R111	06S64996F02	100K ohm
R112	06S64995F45	470 ohm
R113	06S64995F86	24K ohm
R114	06S64995F57	1.5K ohm
R115		
R116		
R117		
R118		
R124		
R126		
R127		
R130		
R131		
R136		
R141		
R191		
R192		
R193		
R194		
R197		
R201		
R202		
R203		
R204		
R207		
R208		
R209		
R210		
R213		
R214		
R225		
R226		
R227		
R228		
R229		
R230		
R235		
R241		
R242		
R401		
R402		
R501		
R502		
R503		
R504		
R506		
R507		
R508		
R509		
R512		
R513		
R514		
R515		

Symbol No.	Part No.	Description
R115	06S64995F93	47K ohm
R116	06S64995F29	100 ohm
R117	06S64995F29	100 ohm
R118	06S64995F53	1K ohm
R124	06S64996F10	220K ohm
R126	06S64995F81	15K ohm
R127	06S64995F77	10K ohm
R130	06S64995F77	10K ohm
R131	06S64995F81	15K ohm
R136	06S64995F61	2.2K ohm
R141	06S70072F15	27 ohm 1/4W
R191	06S64995F69	4.7K ohm
R192	06S64995F69	4.7K ohm
R193	06S64995F69	4.7K ohm
R194	06S64995F77	10K ohm
R197	06S64995F25	68 ohm
R201	06S64995F72	6.2K ohm
R202	06S64995F72	6.2K ohm
R203	06S64995F82	16K ohm
R204	06S64995F82	16K ohm
R207	06S64995F61	2.2K ohm
R208	06S64995F61	2.2K ohm
R209	06S64995F81	15K ohm
R210	06S64995F81	15K ohm
R213	06S64995F50	750 ohm
R214	06S64995F50	750 ohm
R225	06S64995F86	24K ohm
R226	06S64995F86	24K ohm
R227	06S64995F21	47 ohm
R228	06S64995F21	47 ohm
R229	06S64995F78	11K ohm
R230	06S64995F78	11K ohm
R235	06S64995F50	750 ohm
R241	06S64996F10	220K ohm
R242	06S64996F10	220K ohm
R401	06S70072F46	510 ohm 1/4W
R402	06S70072F49	680 ohm 1/4W
R501	06S64996F02	100K ohm
R502	06S64995F57	1.5K ohm
R503	06S64995F57	1.5K ohm
R504	06S70072F37	220 ohm 1/4W
R506	06S64995F93	47K ohm
R507	06S64995F93	47K ohm
R508	06S64995F93	47K ohm
R509	06S64995F93	47K ohm
R512	06S64995F89	33K ohm
R513	06S64995F92	43K ohm
R514	06S64995F77	10K ohm
R515	06S53331F41	1 ohm 1/8W

Symbol No.	Part No.	Description
R517	06S64995F85	22K ohm
R518	06S64995F50	750 ohm
R520	06S64995F75	8.2K ohm
R521	06S64996F14	330K ohm
R522	06S64996F26	1M ohm
R523	06S64996F18	470K ohm
R530	06S64995F85	22K ohm
R535	06S64995F93	47K ohm
R536	06S64995F93	47K ohm
R540	06S64995F85	22K ohm
R541	06S53330F85	22K ohm 1/8W
R542	06S70072F37	220 ohm 1/4W
R560	06S64995F69	4.7K ohm
R561	06S64995F69	4.7K ohm
R562	06S64995F69	4.7K ohm
R563	06S64995F69	4.7K ohm
R564	06S64995F69	4.7K ohm
R565	06S64995F69	4.7K ohm
R566	06S70072F34	160 ohm 1/4W
R567	06S70072F34	160 ohm 1/4W
R568	06S70072F34	160 ohm 1/4W
R569	06S70072F34	160 ohm 1/4W
R570	06S64995F61	2.2K ohm
R571	06S64995F61	2.2K ohm
R573	06S64995F87	27K ohm
R574	06S64995F81	15K ohm
R575	06S64995F77	10K ohm
R576	06S64995F93	47K ohm
R577	06S64995F93	47K ohm
R578	06S64995F93	47K ohm
R579	06S64995F77	10K ohm
R580	06S64995F77	10K ohm
R603	06S64995F93	47K ohm
R604	06S64995F93	47K ohm
R701	06S64996F02	100K ohm
R801	06S70072F34	160 ohm 1/4W
R802	06S70072F34	160 ohm 1/4W
R812	06S70072F27	82 ohm 1/4W

Connector P.C.Board

Diode

D801	48T68580F02	DSA3A4

Capacitors

C203	08S65128F35	CP., 100pF
E520	23S61523F25	ELY., 0.1µF / 50V

Symbol No.	Part No.	Description
Resistors		(All resistors are chip 1/4W±5% unless otherwise noted.)
R233	06S70072F05	10 ohm
R234	06S70072F05	10 ohm
R544	06S70072F45	470 ohm
Miscellaneous		
ET801	01T55619W08	Assy., Ai-NET Connector
HD101	88T55261W01	Pick-Up Unit
M101	59T65085W01	Motor, Load 7V-370mA (LOADING)
M102	59T65085W01	Motor, Load 7V-370mA (ELEVATOR)
M103	59T65085W01	Motor, Load 7V-370mA (SLED)
M104	01V83900W16	Assy., Spindle Motor 2V-90mA (SPINDLE)
S101	40T35543W02	Switch, Detector (UNLOAD)
S102	40T35543W02	Switch, Detector (LOADING)
S104	40T15222W01	Switch, Detector (MAGAZINE IN)
S105	40T71025F01	Switch, Detector (LIMIT)
VR101	18T55678W01	Volume, Slide RS32111 10K ohm

Symbol No.	Part No.	Description

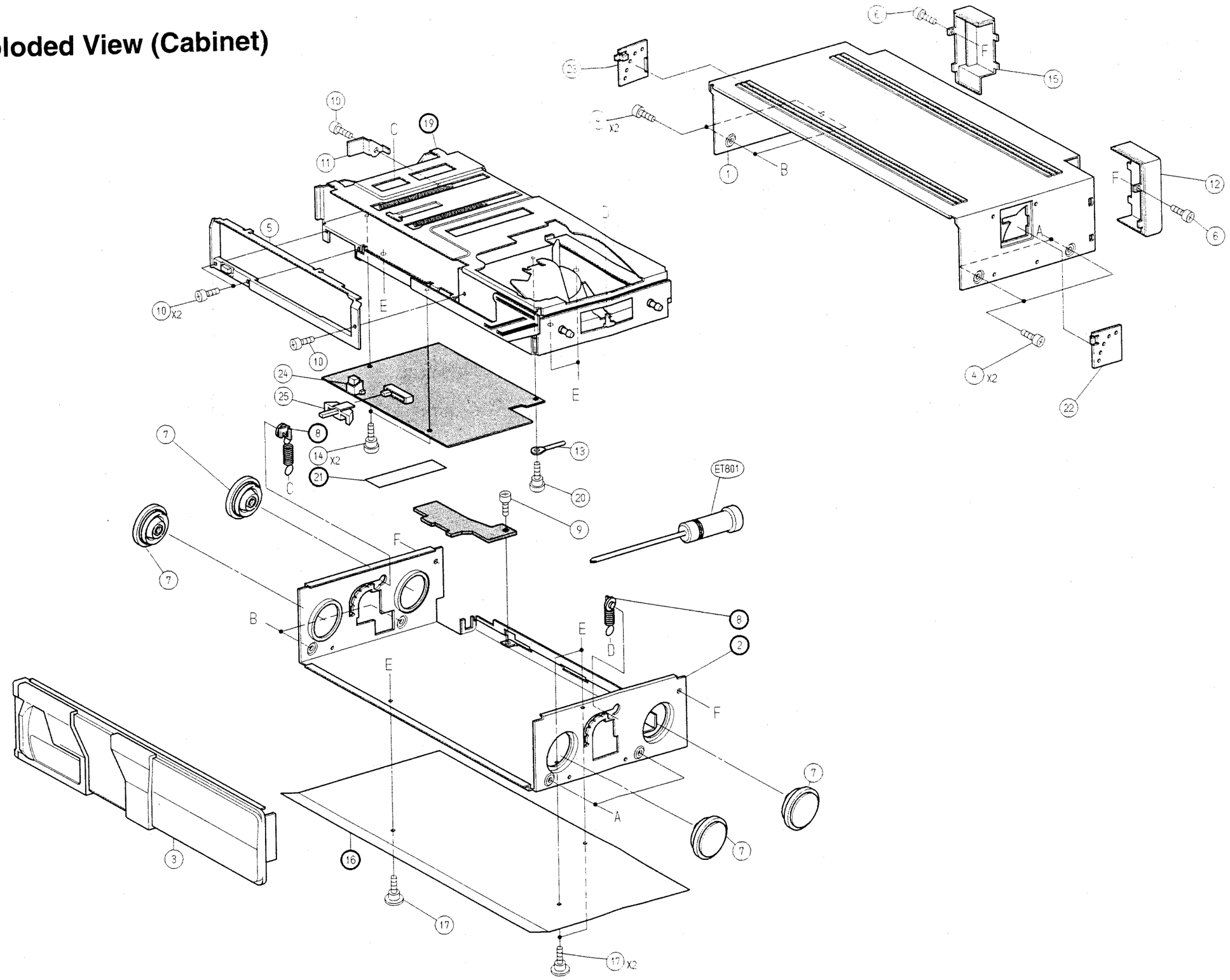
Cabinet Assembly Parts List

NOTE:No parts number on parts list are not supplied.

Symbol No.	Index	Part No.	Description
1	1-E	15D81140W01	Cover, Top
3	5-B	13C81134W01	Assy., Front Escutcheon
4		03A61184W03	Screw, Bind (M2.6X4)
5	2-B	64B60211W04	Assy., Plate Inner
6		03S44205G34	Screw, Pan (M2.6X5)
7		75C80391W01	Damper, DT (C)
9	3-D	03S44205G62	Screw, Bind (M2.6X5)
10		03S94385F48	Screw, Pan Nylok (M2X4)
11	1-C	07A81403W01	Bracket, Transistor
12	2-G	15C81141W01	Cover, Side (R)
13	3-D	29C41045P02	Lug, Wrap Around
14	3-C	03A38056W01	Screw, Special (M2.6X6)
15	1-F	15C81141W02	Cover, Side (L)
17		03A68008W03	Screw, Transport (M3X10.7)
20	3-D	03A38056W02	Screw, Special (M2.6X6)
22	3-F	15B81142W01	Cover, Spring (R)
23	1-D	15B81142W02	Cover, Spring (L)
24	2-C	43A70497W01	Spacer, LED
25	3-C	36A81548W01	Knob, Switch

Symbol No.	Index	Part No.	Description

Exploded View (Cabinet)



1 2 3 4 5

A | B | C | D | E | F | G

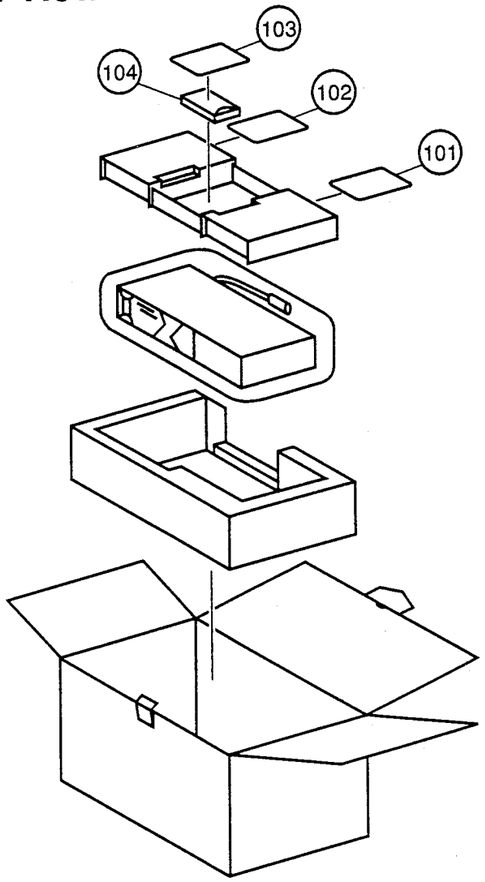
Packing Assembly Parts List

Symbol No.	Part No.	Description
○ 101	01C71646W02	Assy., Kit Installation
△ 101	01C71646W02	Assy., Kit Installation
□ 101	01C71646W01	Assy., Kit Installation
102	01T55561W34	Assy., DIN Connector
○ 103	68P80683W67	Owner's Manual
△ 103	68P80683W67	Owner's Manual
△ 103	68P80683W68	Owner's Manual (I/G/S)
□ 103	68P80683W69	Owner's Manual (J)
104	01D00560K01	Assy., Magazine

Symbol No.	Part No.	Description

NOTE : ○: For North American Model Only, △: For General Foreign Model Only,
□: For Japanese Model Only, Others : Common.

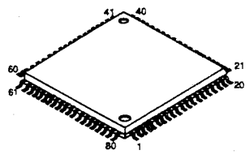
Packing Method View

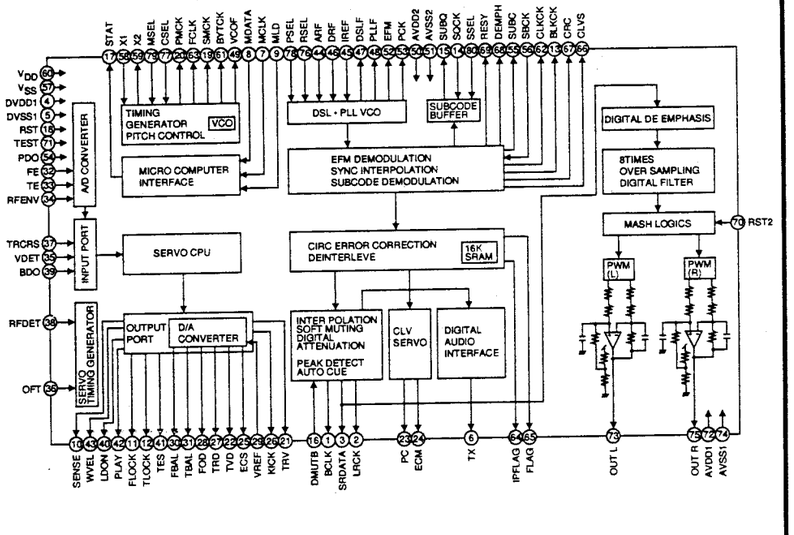


Semi-Conductor Lead Identifications

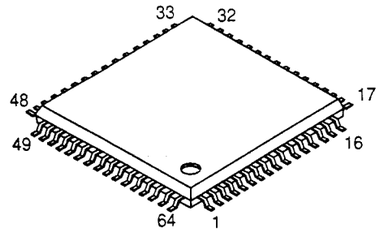
NOTE : For the parts not mentioned, refer to the Schematic Diagram.

MN66271 : IC101





85288W01 : IC501



PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O
1	Ai-RST	O	17	EJLED	O	33	A MUTE	O	49	DOSW	I
2	Min-OUT	O	18	V_{SS}	—	34	VCONT	O	50	ULDSW	I
3	ACC-IN	I	19	BUS-SW	I	35	RESET	I	51	LODSW	I
4	NC	—	20	NC	—	36	B-HOLD	I	52	MAGSW	I
5	RST2	O	21	NC	—	37	BUS-IN	I	53	LMT SW	I
6	SCL	I/O	22	STAT	I	38	A-HOLD	I	54	EJKEY	I
7	SDA	I/O	23	TLOCK	I	39	BLKCK	I	55	AV_{DD}	—
8	Ai-DET	I	24	V_{SS}	—	40	V_{DD}	—	56	AV_{REF}	—
9	V_{SS}	—	25	FLOCK	I	41	X2	—	57	SUB-Q	I
10	A0	O	26	SENSE	I	42	X1	I	58	NC	—
11	A1	O	27	NC	—	43	V_{SS}	—	59	SQCK	O
12	A2	O	28	MLD	O	44	NC	—	60	Ai-RS	O
13	ELVM+	O	29	MDATA	O	45	V_{SS}	—	61	Ai-R/W	O
14	ELVM -	O	30	MCLK	O	46	AV_{SS}	—	62	Ai-SIN	I
15	LODM+	O	31	XRST	O	47	LPS	I	63	Ai-SOUT	O
16	LODM -	O	32	D MUTE	O	48	TEMP	I	64	Ai-SCLK	O